Janardan Bhagat Shikshan Prasarak Sanstha's

CHANGU KANA THAKUR ARTS, COMMERCE & SCIENCE COLLEGE, NEW PANVEL

(AUTONOMOUS)

Re-accredited 'A+' Grade by NAAC
'College with Potential for Excellence' Status Awarded by UGC
'Best College Award' by University of Mumbai

Program: B.A.

Revised Syllabus of F.Y.B. A. Geography
Choice Based Credit & Grading System (75:25)
w.e.f. Academic Year 2019-20

Details of the course:

Sr. No.	Heading	Particulars
1	Title of Course	Geography
2	Eligibility for Admission	12th Arts/ Commerce/ Science of all recognised Board
3	Passing marks	35%
4	Ordinances/Regulations (if any)	---
5	No. of Semesters	Two
6	Level	U.G.
7	Pattern	Semester (75:25)
8	Status	Revised
9	To be implemented from Academic year	2019-2020

Preamble of the Syllabus:

Bachelor of Arts (B.A.) in Geography is a under graduation course of Department of Geography, Changu Kana Thakur Arts, Commerce & Science college, new Panvel (Autonomous) The Choice Based Credit and Grading System to be implemented through this curriculum would allow students to develop a strong footing in the fundamentals and specialize in the disciplines of his/her liking and abilities. This syllabus is prepared to give the sound knowledge and understanding of Geography to undergraduate students at first year of the B.A. degree course. The goal of the syllabus is to make the study of Geography as stimulating, interesting and relevant as possible. The syllabus is prepared by keeping in mind the aim to make students capable of studying Geography in academic and industrial courses. Also to expose the students and to develop interest in them in various fields of Geography. The new and updated syllabus is based on disciplinary approach with vigour and depth taking care of the syllabus is not heavy at the same time it is comparable to the syllabi of other universities at the same level. The students pursuing this course would have to develop understanding of various aspects of the Geography. The conceptual understanding, development of experimental skills, developing the aptitude for academic and professional skills, obtaining basic ideas and understanding of hyphenated techniques, understanding the fundamental Geographic processes and rationale towards application of Geographical knowledge are among such important aspects.

Objectives of the course:

1. To promote understanding of basic facts and concepts in Geography while retaining the excitement of Geography.
2. To make students capable of studying Geography in academic and Industrial courses.
3. To expose the students to various emerging new areas of Geography and apprise them with their prevalent in their future studies and their applications in various spheres of chemical sciences.
4. To develop problem solving skills in students.

Outcome of the course:

By the end of the course, a student should develop the ability:

- To understand, coherently and effectively about various genres of Geography.
- To develop the understanding and interest in the field of Geography
- To develop basic skills in practical Geography and its industrial applications.

Title of the Papers:

F. Y. B. A. Geography

For the subject of Geography there shall be two papers for 60 lectures each comprising of five units of 12 lectures each.

Semester-I

Paper-I: Geomorphology
COURSE CODE: UAR1GE1 (2019-20), Credit - 4

Semester-II

Paper-I: Human Geography
COURSE CODE: UAR2GE1 (2019-20), Credit - 4

Scheme of Examination for Each Semester:

Internal Evaluation: 25 Marks (20 marks for internal test and 05 marks for overall performance)

Duration: 40 Minutes		**Marks: 20**
N.B. 1. All questions are compulsory and carry equal marks.		
Q. 1	**A) Fill in the blanks /Choose the correct alternatives/ Match the pairs** **B) Define the terms/ Answer in one sentence**	**05 Marks** **05 Marks**
Q.2	**Answer the following (Any Two out of three)**	**10 Marks**

Semester End Examination: 75 Marks

Question Paper Pattern

University of Mumbai

Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)

Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)

F.Y.B.A. Geography, Semester- I and II

Duration: 2½ hours		**Marks: 75**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils and simple Calculator is allowed. 3. Attach appendix along with answer paper.		
Q. 1	**Unit-I**	**15 Marks**
	OR	
Q.1	**Unit-I** **(Question may be divided in to A and B)**	**15 Marks**
Q. 2	**Unit-II**	**15 Marks**
	OR	
Q. 2	**Unit-II** **(Question may be divided in to A and B)**	**15 Marks**
Q. 3	**Unit-III**	**15 Marks**
	OR	
Q. 3	**Unit-III** **(Question may be divided in to A and B)**	**15 Marks**
Q. 4	**Unit-IV**	**15 Marks**
	OR	
Q. 4	**Unit-IV** **(Question may be divided in to A and B)**	**15 Marks**
Q. 5	**Unit – V** **Practical Component (Any Two)** **A)** **B)** **C)** **D)**	**15 marks**

Syllabus for Semester I :

University of Mumbai
Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)
Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)
F.Y.B.A. Geography, Semester- I
Paper-I: Geomorphology
COURSE CODE: UAR1GE1 (2019-20), Credit – 4

Unit-I: Interior of the Earth		**12 (lectures)**
1.1	Definition nature and scope of Geomorphology	
1.2	Composition and structure of the interior of the earth	
1.3	Lithological cycle	
1.4	Rocks and minerals	
Unit-II : Endogenic Processes		**12 (lectures)**
2.1	Movements of the earth's crust: Diastrophic and catastrophic movements	
2.2	Diastrophic movements: Uplift and subsidence, folding and faulting	
2.3	Catastrophic movements: Volcanoes and earthquakes: Examples from the World and India	
Unit-III: Exogenic Processes– I		**12 (lectures)**
3.1	Weathering: Concept and types	
3.2	Erosion and mass wasting:	
3.3	Fluvial landforms: Erosional and depositional	
3.4	Glacial landforms: Erosional and depositional	
Unit-IV: Exogenic Processes – II		**12 (lectures)**
4.1	Aeolian landforms: Erosional and depositional	
4.2	Coastal landforms: Erosional and depositional	
4.3	Karst landforms: Erosional and depositional	
Unit-V: Practical Component		**12 (lectures)**
5.1	Identification of contours	
5.2	Types of slope	
5.3	Calculation of gradient	
5.4	Drawing of sections to depict contour landforms –Intervisibility	

Reference Books:

1. Singh, Savindra (2015): "Physical Geography", Pravalika Publications, Allahabad
2. Bunnett, R. B. (1965): "Physical Geography in Diagrams", Parson Education, New Delhi
3. Lal, D. S. (2009): "Physical Geography:, Sharada Pustak Bhavan, Allahabad
4. Qazi, S. A. (2009): "Principles of Physical Geography", APH Publishing Corporation, New Delhi
5. Negi, B. S. (1993): "Physical Geography", S. J. Publications, Meerut
6. Strahler, A. H. and Strahler, A. N. (1992): "Modern Physical Geography", John Willey & Sons, INC, New York
7. Hussain, Majid (2001): "Fundamentals of Physical Geography", Rawat Publications, Jaipur
8. Dayal, P. (2010): "A Text Book of Geomorphology", Rajesh Publications, New Delhi
9. Thornbury, W. (1993): "Principles of Geomorphology", Wiley Esatern Limited, New Delhi
10. Sparks B. W. (1988): "An Introduction to Geomorphology", Longman, London
11. Mishra, B. (2008): "Interpreting Contours and Topographical Maps", Frank Bros. and Co., New Delhi
13. Singh, L. R. (2009): "Fundamentals of Practical Geography", Sharda Pustak Bhavna, Allahabad
14. Mishra, R. P. and Ramesh, A. (2002): "Fundamentals of Cartography", Concept Publishing Company, New Delhi
15. परमार राजेंद्र (२०१६): "भूरूपशास्त्र" हिमालया पब्लिशिंग हाऊस, मुंबई
16. घारपुरे विठ्ठल (२०१४): "भूरूपशास्त्र" पिंपळापुरे आणि पुब्लीशर्स, नागपूर
17. पेडणेकर, नारखेडे व इतर (२०१७) "भूरूपशास्त्र व मानवी भूगोल" शेठ पब्लिशर्स प्रायवेट लिमिटेड, मुंबई

Syllabus for Semester II :

University of Mumbai

Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)

Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)

F.Y.B.A. Geography, Semester- II

Paper-I: Human Geography

COURSE CODE: UAR2GE1 (2019-20), Credit – 4

Unit-I: Introduction to Human Geography		**12 (lectures)**
1.1	Meaning, nature and scope of Human Geography	
1.2	Branches of Human Geography	
1.3	Different approaches to Human Geography	
1.4	Man-environment relationship: Determinism, Possibilism, Probabilism	
Unit-II : Settlements		**12 (lectures)**
2.1	Concept of rural settlements: Types,	
2.2	Site and situation and patterns of rural settlements	
2.3	Concept of urban settlement: Types, site and situation	
2.4	Functional classification of urban settlements	
Unit-III: Population		**12 (lectures)**
3.1	Growth and distribution of World population	
3.2	Factors of population growth in the World	
3.3	Determinants of population distribution in the World	
3.4	Concept and problems of under-population, over-population and optimum population (World examples)	
Unit-IV: Migration		**12 (lectures)**
4.1	Concept and types of migration	
4.2	Causes of migration: Push and pull factors	
4.3	Consequences of migration: Source and destination areas	
4.4	Recent Trends in International Migration	
Unit-V: Practical Component		**12 (lectures)**
5.1	Nearest neighbour analysis	
5.2	Construction and interpretation of line graphs (population growth)	
5.3	Trend in growth rate of population with interpretation	
5.4	Construction and interpretation of flow diagrams	

Reference Books:

1. Johnson R. J. & Others (1983) : The Disctionary of Human Geography, Blackwell England

2. Singh, L. R. (2009): "Fundamentals of Human Geography", Sharda Pustak Bhavan, Allahabad

3. Hussain, M. (2011): "Human Geography", Rawat Publications, Jaipur

4. Dikshit, R. D. (1997): "Geographical Thought: A Contextual History of Ideas", PHI Learning Private Limited, Delhi

5. Singh, R. Y. (2002): "Geography of Settlements", Rawat Publications, Jaipur

6. Siddhartha, K. and Mukherjee, S. (2016): "Cities, Urbanisation and Urban Systems", Kitab Mahal, Delhi

7. Chandna, R. C. (2016): "Geography of Population: Concepts, Determinants and Patterns", Kalyani Publishers, Ludhiana

8. Bhende, A. and Kanitkat, T. (2015): "Principles of Population Studies", Himalaya Publishing House, Mumbai

9. Koser, K. (2007): "International Migration: A Very Short Introduction", Oxford University Press, UK

10. Castles, S., Haas, H., and Miller, M. (2013): "The Age of Migration: International Movements in the Modern World", Guilford Pr.

11. Leong, G. C. and Morgan, G. C. (1982): "Human and Economic Geography", Oxford University Press, Delhi

12. Knowles, R. and Wareing, J. (2012): "Economic and Social Geography", Rupa and CO., Kolkata

13. Waugh, D. (2009): "The New Wider World", Oxford University World, Oxford

14. Mahmood, A. (2008): Statistical Methods in Geographical Studies", Rajesh Publications, New Delhi

15. Singh, L. R. (2009): "Fundamentals of Practical Geography", Sharda Pustak Bhavna, Allahabad

16. Mishra, R. P. and Ramesh, A. (2002): "Fundamentals of Cartography", Concept Publishing Company, New Delhi

16. पेडणेकर, परमार व इतर (२०१६) "मानवी भूगोल" शेठ पब्लिशर्स प्रायवेट लिमिटेड, मुंबई

17. घारपुरे विठ्ठल (२०००): "मानवी भूगोल" पिंपळापुरे आणि पुब्लीशर्स, नागपूर

18. पेडणेकर, नारखेडे व इतर (२०१७) "भूरूपशास्त्र व मानवी भूगोल" शेठ पब्लिशर्स प्रायवेट लिमिटेड, मुंबई

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CHANGU KANA THAKUR ARTS, COMMERCE & SCIENCE COLLEGE, NEW PANVEL

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Program: B.Com.

Revised Syllabus of F.Y.B. Com. - Environmental Studies
Choice Based Credit & Grading System (75:25)
w.e.f. Academic Year 2019-20

Details of the course:

Sr. No.	Heading	Particulars
1	Title of Course	Environmental Studies
2	Eligibility for Admission	12th Commerce/ Science of all recognised Board
3	Passing marks	35%
4	Ordinances/Regulations (if any)	---
5	No. of Semesters	Two
6	Level	U.G.
7	Pattern	Semester (75:25)
8	Status	Revised
9	To be implemented from Academic year	2019-2020

Preamble of the Syllabus:

Bachelor of Arts (B.A.) in Geography is a under graduation course of department of Geography, Changu Kana Thakur Arts, Commerce & Science college, new Panvel (Autonomous) The Choice Based Credit and Grading System to be implemented through this curriculum would allow students to develop a strong footing in the fundamentals and specialize in the disciplines of his/her liking and abilities. This syllabus is prepared to give the sound knowledge and understanding of Geography to undergraduate students at first year of the B.A. degree course. The goal of the syllabus is to make the study of Geography as stimulating, interesting and relevant as possible. The syllabus is prepared by keeping in mind the aim to make students capable of studying Geography in academic and industrial courses. Also to expose the students and to develop interest in them in various fields of Geography. The new and updated syllabus is based on disciplinary approach with vigour and depth taking care of the syllabus is not heavy at the same time it is comparable to the syllabi of other universities at the same level. The students pursuing this course would have to develop understanding of various aspects of the Geography. The conceptual understanding, development of experimental skills, developing the aptitude for academic and professional skills, obtaining basic ideas and understanding of hyphenated techniques, understanding the fundamental Geographic processes and rationale towards application of Geographical knowledge are among such important aspects.

Objectives of the course:

1. To create an environmental awareness among commerce students.
2. Make aware students about various environmental factors and its relation to the field of Commerce.
3. To highlight functional and spatial links between environment, economy and society.
4. To create an insight into various environmental issues at global, national and regional level and measures for environmental conservation.

Outcome of the course:

By the end of the course, a student should develop the ability:

• To understand, comprehensibly and effectively about various fields of Geography.

• To develop the understanding and interest in the field of Geography

• To develop basic skills in Geographical practical's and its applications.

Title of the Papers:

F. Y. B. Com. Environmental Studies

For the subject of Environmental Studies there shall be two papers for 60 lectures each comprising of five units of 12 lectures each.

Semester-I

Paper-I: Environmental Studies
COURSE CODE: UCM1EVS (2019-20), Credit - 4

Semester-II

Paper-I: Environmental Studies
COURSE CODE: UCM2EVS (2019-20), Credit - 4

Scheme of Examination for Semester I and II:

Internal Evaluation: 25 Marks (20 marks for internal test and 05 marks for overall performance)

Duration: 40 Minutes		**Marks: 20**
N.B. 1. All questions are compulsory and carry equal marks.		
Q. 1	**A) Fill in the blanks /Choose the correct alternatives/ Match the pairs** **B) Define the terms/ Answer in one sentence**	**05 Marks** **05 Marks**
Q.2	**Answer the following (Any Two out of three)**	**10 Marks**

Semester End Examination: 75 Marks

Question Paper Pattern

University of Mumbai

Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)

Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)

F.Y.B.Com. Environmental Studies, Semester- I and II

Duration: 2½ hours		**Marks: 75**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils and simple Calculator is allowed. 3. Attach appendix along with answer paper.		
Q. 1	**Unit-I**	**15 Marks**
	OR	
Q.1	**Unit-I** **(Question may be divided in to A and B)**	**15 Marks**
Q. 2	**Unit-II**	**15 Marks**
	OR	
Q. 2	**Unit-II** **(Question may be divided in to A and B)**	**15 Marks**
Q. 3	**Unit-III**	**15 Marks**
	OR	
Q. 3	**Unit-III** **(Question may be divided in to A and B)**	**15 Marks**
Q. 4	**Unit-IV**	**15 Marks**
	OR	
Q. 4	**Unit-IV** **(Question may be divided in to A and B)**	**15 Marks**
Q. 5	**Unit – V** **Practical Component** **A)** **B)**	**15 marks** (08 Marks) (07 Marks)

Syllabus for Semester I:

University of Mumbai
Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)
Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)
F.Y.B.Com. Environmental Studies, Semester- I
COURSE CODE: UCM1EVS (2019-20), Credit – 4

Unit-I: Environment and Ecosystem		**12 (lectures)**
1.1	Environment: Concept and components	
1.2	Concept of an ecosystem: Components and types,	
1.3	Functioning and structure: Food chain and food web, ecological pyramid, hydrological cycle, carbon cycle and nitrogen cycle	
1.4	Importance of Environmental Studies.	
Unit-II : Natural Resources and Sustainable Development		**12 (lectures)**
2.1	Concept of natural resources: Classification and types of resources	
2.2	Factors influencing resource utilization	
2.3	Problems associated with water, forest and energy resources	
2.4	Need for conservation and measures for sustainable development of resources	
Unit-III: Growth of Population and Emerging Issues of Development		**12 (lectures)**
3.1	Population explosion in the world and in India and related issues	
3.2	Pattern of population growth in the world and in India and associated issues	
3.3	Population policies of India;	
3.4	Environment and human health; Human development index and the World happiness index	
Unit-IV: Urbanization and Environment		**12 (lectures)**
4.1	Concept of urbanization: Trends of urbanization-World and India	
4.2	Urbanization and related issues: overpopulation and pressure on civic amenities, slums proliferation, growth of informal sector, dilapidated buildings and redevelopment issues, sick units etc.	
4.3	Environmental issues in urban area: Air pollution, water pollution, land pollution and loss biodiversity	
4.4	Concept and need of Smart Cities and safe cities in India - Sustainable urban development	
Unit-V: Reading of Thematic Maps and Map Filling (Practical Component)		**12 (lectures)**
5.1	Reading of Thematic Maps: Located bars, Circles, Pie charts, Isopleth, Choropleth and Flow map, Pictograms – (Only reading and interpretation)	
5.2	Map filling of World: (Environmentally significant features) Using point, line and polygon segment.	

Reference Books:

1. Asolekar S, Gopichandran R. 2005, '*Preventive Environmental Management - an Indian perspective'*, CEE, Ahmedabad, Foundation Books Pvt Ltd, Daryaganj
2. Chambers N., Simons C., Wackernagel M., 2006, '*Sharing Nature's Interest - Ecological footprints as an indicator of sustainability*'.
3. Doniwal H. K., '*Urban Geography'*, GNOSIS, Delhi, 2009.
4. Dresner S., 2005, '*The principles of sustainability'*, Earthscan publication Ltd, London.
5. Gandotra V., Patel S., 2008, *'Environmental problems and strategies'*, Serials Publication, New Delhi
6. Hulse J. H., 2007, '*Sustainable Development at risk - Ignoring the past'*, Cambridge University Press India Pvt Ltd., New Delhi.
7. Mohanta R., Sen A., Singh M.P., 2009, '*Environmental Education* - Vol. 1', APH publishing Corporation New Delhi.
8. Perumal M., Veerasekaran R., Suresh M., Asaithambi M., 2008, *'Environmental and Ecological issues in India*', Abhijeet Publication, Delhi
9. Pednekar H.M., Parmar R.O. and Others.. 2016, '*Environmental Studies'* Sheth Publishers Private Ltd, Mumbai
10. Prabu P.C., Udayasooriyan C., Balasubramanian G, 2009, '*An introduction to Ecology and Environmental Science*', Avinash Paperbacks, New Delhi.
11. Purvis M. and Grainger A., 2005, *'Exploring Sustainable Development - Geographical perspectives*', Earthscan Publication, UK.
12. Rajgopalan R., 2005, '*Environmental Studies - from crisis to cure'*, Oxford University press, New Delhi.
13. Reddy K. P., Reddy D. N., 2003, '*Environmental Education*', Neelkanth Publication, Hyderabad.
14. Santra S.C., 2004, '*Environmental Science'*, New Central Book agency Pvt Ltd, Kolkata.
15. Saxena H.M., 2000, '*Environmental Management'*, Rawat Publication, New Delhi, pp.
16. Sinha S. P., Falguni R., Prasad M., Nanghia H.R., 1993, '*Instant Encyclopaedia of Geography*', Mittal Publication, New Delhi.
17. Sudhir M.A., Alankara M. M., 2003, '*Environmental issues'*, Reliance publishing house, New Delhi.
18. Swarup R.S., Mishra S.N., Juahari V.P, 1992, '*Encyclopaedia of Ecology, environment and pollution control - 20'*, Mittal publication, New Delhi
19. Tiwari V., 2009, '*A textbook of Environmental studies'*, Himalaya Publications House, New Delhi
20. Tomar A., 2007, '*Environmental Education'*, Kalpaz publication, New Delhi
21. Uberoi N.K., 2007, '*Environmental Management'*, Excel Books, New Delhi
22. William M., Grossa J., 2002, '*Environmental Geography - Science, Land use and Earth Systems',* John Wiley and Sons Inc USA.
23. Wright R., 2008, '*Environmental Science - Towards sustainable future'*, Eastern Economy Edition, Prentice hall Inc, New Jersey, U.S.A

Syllabus for Semester II:

University of Mumbai

Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)

Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)

F.Y.B.Com. Environmental Studies, Semester- II

COURSE CODE: UCM2EVS (2019-20), Credit – 4

Unit-I: Solid Waste Management for Sustainable Society		**12 (lectures)**
1.1	Concept and classification of solid wastes; Types and sources of solid waste	
1.2	Environmental impact of solid waste pollution	
1.3	Solid waste management : Initiatives and measures at global, national and local level	
1.4	Role of society in solid waste management in urban and rural areas	
Unit-II : Agricultural Practices and Environmental Degradation		**12 (lectures)**
2.1	Environmental problems associated with agriculture: Loss of productivity, land degradation, desertification	
2.2	Extensive use of water; Depletion of fresh water resources (intrusion of saline water, dry beds or streams and rivers and aquifers/ water pollution: surface and subsurface)	
2.3	Health hazards associated with modern agricultural practices: All - human, animals, birds and vegetation on land and in water	
2.4	Sustainable agricultural practices: Initiatives at global level and in India	
Unit-III: Tourism and Environment		**12 (lectures)**
3.1	Tourism: Meaning, nature, scope and importance, typology of tourism	
3.2	Tourism potentials in India and challenges before India, tourism policy of India	
3.3	Consequences of tourism : Positive and negative Impacts on economy, culture and environment	
3.4	Sustainable tourism practices	
Unit-IV: Environmental Movements and Management		**12 (lectures)**
4.1	Environmental movements in India: Save Ganga plan, Save tiger campaign, Save Western Ghats movement	
4.2	Environmental Management: Concept, need and relevance; concept of ISO 14000 and ISO 16000	
4.3	Concept of Carbon Bank and Carbon Credit , EIA , ecological footprint	
4.4	Applications of GST in Environmental Management : Concept and components, importance of Geo-spatial technology in environmental management	
Unit-V: Map Filling (Practical Component)		**12 (lectures)**
5.1	Map filling of Konkan Region (Environmentally significant features) using point, line and polygon segment	
5.2	Map filling of Mumbai: (Environmentally significant features) using point, line and polygon segment	

Reference Books:

1. Asolekar S, Gopichandran R. 2005, '*Preventive Environmental Management - an Indian perspective'*, CEE, Ahmedabad, Foundation Books Pvt Ltd, Daryaganj
2. Chambers N., Simons C., Wackernagel M., 2006, '*Sharing Nature's Interest - Ecological footprints as an indicator of sustainability*'.
3. Doniwal H. K., '*Urban Geography'*, GNOSIS, Delhi, 2009.
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10. Prabu P.C., Udayasooriyan C., Balasubramanian G, 2009, '*An introduction to Ecology and Environmental Science*', Avinash Paperbacks, New Delhi.
11. Purvis M. and Grainger A., 2005, *'Exploring Sustainable Development - Geographical perspectives*', Earthscan Publication, UK.
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13. Reddy K. P., Reddy D. N., 2003, '*Environmental Education*', Neelkanth Publication, Hyderabad.
14. Santra S.C., 2004, '*Environmental Science'*, New Central Book agency Pvt Ltd, Kolkata.
15. Saxena H.M., 2000, '*Environmental Management'*, Rawat Publication, New Delhi, pp.
16. Sinha S. P., Falguni R., Prasad M., Nanghia H.R., 1993, '*Instant Encyclopaedia of Geography*', Mittal Publication, New Delhi.
17. Sudhir M.A., Alankara M. M., 2003, '*Environmental issues'*, Reliance publishing house, New Delhi.
18. Swarup R.S., Mishra S.N., Juahari V.P, 1992, '*Encyclopaedia of Ecology, environment and pollution control - 20'*, Mittal publication, New Delhi
19. Tiwari V., 2009, '*A textbook of Environmental studies'*, Himalaya Publications House, New Delhi
20. Tomar A., 2007, '*Environmental Education'*, Kalpaz publication, New Delhi
21. Uberoi N.K., 2007, '*Environmental Management'*, Excel Books, New Delhi
22. William M., Grossa J., 2002, '*Environmental Geography - Science, Land use and Earth Systems'*, John Wiley and Sons Inc USA.
23. Wright R., 2008, '*Environmental Science - Towards sustainable future'*, Eastern Economy Edition, Prentice hall Inc, New Jersey, U.S.A

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NEW PANVEL

(AUTONOMOUS)

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'College with Potential for Excellence' Status Awarded by UGC
'Best College Award' by University of Mumbai

Program: B.A.

Revised Syllabus of S.Y.B. A. Geography
Paper No. II and III
for
Semester III and IV
Choice Based Credit & Grading System (75:25)
w.e.f. Academic Year 2020-21

Details of the course:

Sr. No.	Heading	Particulars
1	Title of Course	Geography
2	Eligibility for Admission	F.Y.B.A. of all recognised Universities
3	Passing marks	40%
4	Ordinances/Regulations (if any)	---
5	No. of Semesters	Two
6	Level	U.G.
7	Pattern	Semester (75:25)
8	Status	Revised
9	To be implemented from Academic year	2020-2021

Preamble of the Syllabus:

Bachelor of Arts (B.A.) in Geography is a under graduation course of Department of Geography, Changu Kana Thakur Arts, Commerce & Science college, New Panvel (Autonomous) The Choice Based Credit and Grading System to be implemented through this curriculum would allow students to develop a strong footing in the fundamentals and specialize in the disciplines of his/her liking and abilities. This syllabus is prepared to give the sound knowledge and understanding of Geography to undergraduate students at second year of the B.A. degree course. The syllabus is prepared to determine and analyse knowledge of the facts, processes, and methods of Geography. The content of syllabus will expose the students to various emerging new areas of Geography and acquaint them with their prevalent in their future studies and their applications in society. Through this course Students will acquire geographic analytical skills that can be applied to a variety of research and professional tasks where the analysis of spatial information is required.

TITLE OF THE PAPERS:

S. Y. B. A. Geography (Paper No. II & III)

For the subject of Geography there shall be two papers for 45 lectures each comprising of five units of 9 lectures each.

Semester-III:

Paper-II: An Introduction to Climatology
Course Code: UAR3GE2, Credit – 3

Paper-III: Physical Geography of India
Course Code: UAR3GE3, Credit - 3

Semester-IV:

Paper-II: Introduction to Oceanography
Course Code: UAR4GE2, Credit - 3

Paper-III: Agriculture Geography of India
Course Code: UAR4GE3, Credit – 3

COURSE OBJECTIVES AND OUCOMES:

Semester: - III - S.Y.B.A. Geography
Revised Syllabus w.e.f. Academic Year, 2020-21 (CBSGS)

PAPER NO. II - AN INTRODUCTION TO CLIMATOLOGY (UAR3GE2)

Course Objectives:

1. To determine and analyse knowledge of the facts, processes, and branches of Climatology
2. To study the components of air pressure and atmospheric circulation.
3. To learn the concept and process of humidity and precipitation.
4. To understand the concept of climate and changing weather phenomena.
5. To develop basic skills in practical Geography and its applications in climatological study.

Course Outcomes:

By the end of the course, a student should develop the ability to:
1. Understand the introduction to Climatology considering weather & climate, nature, scope, and some other sub division of the course.
2. Understand weather phenomena winds, humidity, precipitation and winds.
3. Understand the process, methods of weather forecasting and climatic changes.
4. Learn the climatic changes, its causes, effects and its measures.
4. Able to read and interpret the weather map and to construct the various graphs related to climatology.

PAPER NO. III – PHYSICAL GEOGRAPHY OF INDIA (UAR3GE3)

Course Objectives:

1. To understand the extent and significance of India's location.
2. To study the physiography and the drainage pattern of India.
3. To expose the students to various facts and processes about climate, soil and natural vegetation of India.
4. To cultivate a sense of awareness among students and the public on the need to conserve our environment.
5. To acquaint the students about the mineral and power resources in India.
6. To develop basic skills in practical Geography and its applications.

Course Outcomes:

By the end of the course, a student should develop the ability to:
1. Understand importance of the location and the geographical personality of India.
2. Understand the variability of drainage pattern and climate in India.
3. Study the soil and forest resources, problems related to its depletion and conservation methods.
4. Study the minerals and energy resources in India.
5. Show the geographical features in the map of India.
6. Read, convert and prepare the map scale.

Semester: - IV - S.Y.B.A. Geography
Revised Syllabus w.e.f. Academic Year, 2020-21 (CBSGS)

PAPER NO. II - AN INTRODUCTION TO OCEANOGRAPHY (UAR4GE2)

Course Objectives:

1. To study the origin development and branches of oceanography.
2. To understand the structure and composition of ocean water and bottom relief of ocean floor.
3. To learn the formation, types and effects of tides and ocean currents.
4. To understand and learn the relationship of man and ocean.
5. To develop basic skills in practical Geography and its applications in oceanographic study.

Course Outcomes:

By the end of the course, a student should develop the ability to:
1. Understand the origin, development and branches of oceanography.
2. To learn the importance and physical structure and composition of ocean water and relief.
3. Knowledge about the formation, types and effect of tides and ocean currents.
4. Understand the relationship between man and ocean.
5. Read and interpret the bathymetrical maps.

PAPER NO. III – AGRICULTURE GEOGRAPHY OF INDIA (UAR4GE3)

Course Objectives:

1. To study the definitions, nature scope and approaches of agriculture geography.
2. To understand the salient features of Indian agriculture and its importance in Indian economy.
3. To study types of farming, major crops, agro climatic zones and problems of agriculture in India.
4. To learn the concept, components and impacts of green revolution in India.
5. To study the sustainable agriculture and watershed management in India.
6. To understand the recent trends and use of technology in agriculture.
7. To learn the reading and interpretation the thematic maps and draw the statistical diagrams and graphs.

Course Outcomes:

By the end of the course, a student should develop the ability to:
1. Understand the introduction to agriculture, nature, scope, significance and approaches of agriculture geography.
2. Understand features, determinants, major crops and problems of Indian agriculture
3. Understand the history, components and impacts of green revolution in India.
4. Understand the development of recent trends and technology used in agriculture in India.
5. Interpret the thematic maps and draw the statistical diagrams and graphs.

SCHEME OF EXAMINATION FOR EACH SEMESTER:

***Internal Evaluation:** 25 Marks

(20 marks for internal test and 05 marks for overall performance)

Duration: 40 Minutes		**Marks: 20**
N.B. 1. All questions are compulsory and carry equal marks.		
Q. 1	**A) Fill in the blanks /Choose the correct alternatives/ Match the pairs** **B) Define the terms/ Answer in one sentence**	**05 Marks** **05 Marks**
Q.2	**Answer the following (Any Two out of three)**	**10 Marks**

****Semester End Examination:** 75 Marks

Question Paper Pattern

University of Mumbai

Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)

Revised Syllabus w.e.f. Academic Year, 2019-20 (CBSGS)

S.Y.B.A. Geography, Semester- III and IV

Duration: 2½ hours		**Marks: 75**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils and simple Calculator is allowed. 3. Attach appendix along with answer paper.		
Q. 1	**Unit-I**	**15 Marks**
	OR	
Q.1	**Unit-I** **(Question may be divided in to A and B)**	**15 Marks**
Q. 2	**Unit-II**	**15 Marks**
	OR	
Q. 2	**Unit-II** **(Question may be divided in to A and B)**	**15 Marks**
Q. 3	**Unit-III**	**15 Marks**
	OR	
Q. 3	**Unit-III** **(Question may be divided in to A and B)**	**15 Marks**
Q. 4	**Unit-IV**	**15 Marks**
	OR	
Q. 4	**Unit-IV** **(Question may be divided in to A and B)**	**15 Marks**
Q. 5	**Unit – V** **Practical Component (Any Two)** **A)** **B)**	**15 marks**

SYLLABUS FOR SEMESTER III :

Paper: II

University of Mumbai
Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)
Revised Syllabus w.e.f. Academic Year, 2020-21 (CBSGS)
S.Y.B.A. Geography, Semester- III
Paper-II: An Introduction to Climatology
COURSE CODE: UAR3GE2, Credit - 3

Unit-I: Introduction to Climatology		**09 (lectures)**
1.1	Definition, nature, scope and branches of climatology	
1.2	Concept and elements of weather and climate	
1.3	Composition and structure of atmosphere	
1.4	Insolation: Vertical and horizontal distribution of temperature	
Unit-II : Air Pressure and Atmospheric Circulation		**09 (lectures)**
2.1	Air pressure: Concept, types and influencing factors	
2.2	Horizontal distribution of air pressure	
2.3	Wind: Types of winds: Global, regional and local	
2.4	Upper air circulation (Jet stream): Concept, origin and effects	
Unit-III: Humidity and Precipitation		**09 (lectures)**
3.1	Humidity: Types - absolute, relative and specific	
3.2	Condensation and its forms	
3.3	Precipitation and its types	
3.4	Spatial distribution of rainfall	
Unit-IV: Climate and Weather Phenomena		**09 (lectures)**
4.1	Cyclones: tropical and temperate	
4.2	Anti-cyclones and tornados	
4.3	El Nino and Indian monsoon	
4.4	Climate change: Global warming, causes effects and measures	
Unit-V: Practical Component		**09 (lectures)**
5.1	IMD: Weather signs and symbols, Reading and interpretation of IMD weather maps	
5.2	Construction of Wind rose, Climograph and Hythergraph	

Reference Books:-

1. Ahrens, C.D. (2012): Essentials of Meteorology: An Invitation to the Atmosphere; Cengage Learning, Boston
2. Ahrens, C.D., Jackson, P.L., Jackson, C.E.J. and Jackson, C.E.O. (2012): Meteorology Today: An Introduction to Weather, Climate and the Environment; Cengage Learning; Boston
3. Barry, R.G. and Chorley, R.J. (2003): Atmosphere, Weather and Climate; Psychology Press, Hove; East Sussex.
4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Critchfield, H.J., (1975): general Climatology, Prentice Hall, New Jersey.
6. Lal D.S. (1997): Climatology; Sharda Pustak Bhavan; Allahabad
7. Lydolph, P.E.(1985): The Climate of the Earth, Rowman Nad Allanheld, Totowa, New Jersey.
8. Mather,J.R.(1974): Climatology: Fundamentals and Applications; Mc Craw Hill Book Co., U.S.A.
9. Matthews, W. H., Kellogg, W., Robinson, G.D. (1971): Man's Impact on Climate; M.I.T. Press Design Dept. U.S.A.
10. Oliver, J.E. (1993): Climatology: An Atmospheric Science, Pearson Education India, New Delhi
11. Rosenberg, N.J., Blad, B.L., Verma, S.B.(1983): Micro-climate Biological Environment; John Wiley & Sons, U.S.A.
12. Rumney, G.R. (1968): Climatology and the World Climates, Macmillan, London.
13. Shinde P. ; Pednekar H. et.al. (2010): Introduction to Geography, Sheth Publishers Pvt.Ltd., Mumbai.
14. Subrahmanyam, V.P. (ed) (1983): Contributions to Indian Geography a) Vol III- General Climatology, b) Volume IV- Applied Climatology. Heritage Publishers, New Delhi.
15. Trewartha, G.T. (1980): An Introduction to Climate; McGraw Hill, New York, 5th edition, (International Student Edition)

Paper: III

University of Mumbai
Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)
Revised Syllabus w.e.f. Academic Year, 2020-21 (CBSGS)
S.Y.B.A. Geography - Semester- III
Paper-III: Physical Geography of India
COURSE CODE: UAR3GE3, Credit - 3

Unit-I:	**Introduction of India**	**09 (lectures)**
1.1	India: Location , extent and significance India: Major physiographic divisions	
1.2	Mountainous region of India	
1.3	North Indian plains	
1.4	Peninsular plateau of India	
1.5	Coastal plains and islands of India	
Unit-II:	**Drainage System**	**09 (lectures)**
2.1	Drainage System: Concept and types	
2.2	Himalayan rivers of India	
2.3	Peninsular Rivers of India	
2.4	Lakes of India	
Unit-III:	**Climate, Soils and Natural Vegetation**	**09 (lectures)**
3.1	Seasons in India	
3.2	Soils of India: Importance, types and formation	
3.3	Forest in India: Importance and classification	
3.4	Conservation of soil and forest in India	
Unit-IV:	**Mineral and Energy Resources**	**09 (lectures)**
4.1	Ferrous minerals in India: Types and distribution (Iron ore, manganese, bauxite and other important minerals)	
4.2	Nonferrous minerals in India: Types and distribution (Mica, limestone, gypsum, clay and other important minerals)	
4.3	Energy resources in India: Types and distribution (Coal, mineral oil and natural gas and other important resources)	
4.4	Power Resources in India: Types and distribution (Hydro, wind, solar, tidal and other important resources)	
Unit-V:	**Practical Component**	**09 (lectures)**
5.1	Map filling: Showing geographical features in the Map of India (Related to above units)	
5.2	Map Scale – Types, Conversion and drawing	

Reference books:-

1. Deshpande C.D. (1992): India: A Regional Interpretation, Northern Book Centre, New Delhi.

2. Bharucha, F.R. (1983): A text book of the plant geography of India, Oxford Unievrsity Press, Bombay.

3. Dikshit, K.R.(1991): Environment, Forest Ecology and man in the Western Ghats- The Case of Mahabaleshwar Plateau, Rawat Publications, New Delhi.

4. Forest Survey of India: State Forests Reports, Dehradun.

5. Khullar, D.R. (2014): India: A Comprehensive Geography; Kalyani Publishers

6. Miller, R.W. et al. (1995): Soil in Our Environment, Prentice hall, U.S.A.

7. Raychudhari, S.P.(1958): Soils of India, ICAR, New Delhi

8. Robinson, F (ed.) (1989): The Cambridge Encyclopedia of India, Pakistan, Bangla desh and Sri Lanka,Cambridge University Press.

9. Savindra Singh (2006) : Physical Geography of India ; Pravalika Publications, Allahabad.

10. Sharma T.C. (2013) Economic Geography of India; Rawat Publications, New Delhi.

11. 15. परमार राजेंद्र (२०१६): "भारताचा प्राकृतिक भूगोल" हिमालया पब्लिशिंग हाऊस, मुंबई

12. 16. घारपुरे विठ्ठल (२०१४): "भारताचा भूगोल पिंपळापुरे आणि पुब्लीशर्स, नागपूर

13. 17. पेडणेकर, नारखेडे व इतर (२०१७) "भारताचा प्राकृतिक भूगोल" शेठ पब्लिशर्स प्रायवेट लिमिटेड, मुंबई

SYLLABUS FOR SEMESTER IV :

Paper: II

University of Mumbai
Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)
Revised Syllabus w.e.f. Academic Year, 2020-21 (CBSGS)
S.Y.B.A. Geography, Semester- IV
Paper-II: Introduction to Oceanography
COURSE CODE: UAR4GE2, Credit - 3

Unit-I:	**Nature of Oceanography**	**09 (lectures)**
1.1	Origin and Development of Oceanography	
1.2	Oceanography : Concept, nature and scope	
1.3	Branches of oceanography	
1.4	Oceans and its characteristic	
Unit-II:	**Bottom Relief and Ocean**	**09 (lectures)**
2.1	Structure of bottom relief of ocean floor	
2.2	Composition of ocean water	
2.3	Ocean water temperature: Factors and distribution	
2.4	Salinity of ocean water: Factors and distribution	
Unit-III:	**Movements of Ocean Water**	**09 (lectures)**
3.1	Waves- Formation and types	
3.2	Tsunami and their effects on coast	
3.3	Concept and types of Tides	
3.4	Ocean Currents – types, distribution and effects of ocean currents	
Unit-IV:	**Man and Ocean**	**09 (lectures)**
4.1	El- Niño and La-Niña phenomenon	
4.2	Coral reefs and their importance	
4.3	Marine Ecosystem: Types and characteristics	
4.4	Marine pollution: Causes, effects and measures	
Unit-V:	**Practical Component**	**09 (lectures)**
5.1	Map filling : Related to Oceanography	
5.2	Reading and Interpretation of navigation charts and bathymetric maps	

Reference books:-

1. Bhatt, J.J. 91978): Exploring the Planet Ocean, D.Von Nostrand Co.New York.

2. Birla Economic Research Foundation, economic Research Division 91992): The Oceans, Allied Publishers Ltd. New Delhi.
3. Chandra, S. and Others (eds).(1993): The Indian Ocean and its islands: Strategic Scientific and Historical perspectives, sage Publications, New Delhi.

4. Chawan S.V. (ed) (2015): Physical Geography, Paper I, Published by Director (I/C), Institute of Distance and Open Learning, University of Mumbai.
5. Fairbridge, R.W.ed) Encyclopeadia of Oceanography, Reinholt, New York.

6. Sharma, R.C. (ed)(1985): The Oceans: realities and Prospects, Rajesh Publications, New Delhi.
7. Sengupta,R. and Desa E,(eds) (2001): The Indian Ocean: A Perspective Vol.,I and II Oxford and IBH Publishing Company Private Limited, New Delhi.
8. Paul, P.R.(1998): Invitation to Oceanography, Jones and Bartlett Publishing, Sudbury, Massachusetts.
9. Rajgopalan, R (ed) (1996): Voices for Oceans, A Report to the Independent World Commission on the Oceans, International Ocean Institute, Operational centre, Madras, India.
10. Qasim, S.Z(1998): Glimpses of Indian Ocean, Universities Press(India) Limited, Hyderabad.

Paper: III

University of Mumbai
Changu Kana Thakur A.C.S. College, New Panvel (Autonomous)
Revised Syllabus w.e.f. Academic Year, 2020-21 (CBSGS)
S.Y.B.A. Geography, Semester- IV
Paper-III: Agriculture Geography of India
COURSE CODE: UAR4GE3, Credit - 3

Unit-I:	**Introduction to Agricultural Geography**	**09 (lectures)**
1.1	Definition, nature and scope of Agricultural Geography	
1.2	Approaches of Agriculture Geography	
1.3	Salient features of Indian agriculture	
1.4	Importance of agriculture in Indian economy	
Unit-II:	**Introduction to Indian Agriculture**	**09 (lectures)**
2.1	Factors influencing agriculture in India	
2.2	Types of farming in India	
2.3	Major crops of India	
2.4	Agro- climatic regions of India	
2.5	Problems associated with Indian agriculture (Natural, Socio-Economic and Political)	
Unit-III:	**Green Revolution in India**	**09 (lectures)**
3.1	Green Revolution in India: Introduction and components	
3.2	Impacts of Green Revolution	
3.3	Sustainable agriculture in India	
3.4	Watershed management in India	
Unit-IV:	**Recent Trends in Agriculture**	**09 (lectures)**
4.1	Livestock resources and white revolution	
4.2	Genetic engineering and tissue culture	
4.3	Horticulture and poly house agriculture	
4.4	Agro processing and agro exports in India	
4.5	Agro-tourism and Agro forestry	
Unit- V:	**Practical Component**	**09 (lectures)**
5.1	Interpretation/ question- answer on thematic maps related to agriculture of India (NATMO and other)	
5.2	Drawing of Statistical Diagrams and Graphs: Bar graphs, line graphs, and pie charts	

Reference books:-

1. Bansil, B. C. (1975): 'Agricultural Problems of India', Delhi.
2. Bayliss Smith, T.P. (1987) : The Ecology of Agricultural Systems. Cambridge University Press, London .
3. Berry, B.J.L. et. al.(1976) : The Geography of Economic Systems. Prentice Hall, New York.
4. Gregor, H.P.: Geography of Agriculture. Prentice Hall, New York, 1970.
5. Grigg, D. (1984): 'An Introduction to Agricultural Geography', Hutchinson Publication, London
6. Grigg, D.B.(1974) : The Agricultural Systems of the World. Cambridge University Press, New York.
7. Hartshorn, T.N. and Alexander, J.W. (1988): Economic Geography. Prentice Hall, New Delhi.
8. Morgan W.B. and Norton, R.J.C. (1971): Agricultural Geography. Mathuen, London, .
9. Morgan, W. B. and Munton, R. J. C. (1977): 'Agricultural Geography' Methuen, London.
10. Morgan, W.B.(1978): Agriculture in the Third World - A Spatial Analysis. Westview Press, Boulde.
11. Sauer, C. O. (1952): 'Agricultural Origins and Dispersals', American Geographical Journal
12. Sauer, C.O.(1969): Agricultural Origins and Dispersals. M.I.T. Press, Mass, U.S.A.
13. Singh J.(1997): Agricultural Development in South Asia: A Comparative A Study in the Green Revolution Experiences, national Books Organization, New Delhi.
14. Singh, J. and Dhillon, S. S. (1984): 'Agricultural Geography', McGraw Hill, New Delhi.
15. Singh, J. and Dhillon, S.S. (1988), "Agricultural Geography", 2nd edition, Tata McGraw-Hill, NewDelhi
16. Symons, L. (1972): 'Agricultural Geography', Bell and Sons, London
17. Tarrant, J.R.(1974): Agricultural Geography, Problems in Modern Geography Series, John Wiley and Sons.
18. The Hindu (2006): Survey of Indian Agriculture 2006. New Delhi.
19. Wigley, G.(1981), Tropical Agriculture: The Development of Production, 4th edition, Arnold, London

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UNIVERSITY OF MUMBAI

SYLLABUS FOR THIRD YEAR BACHELOR OF ARTS AND

BACHELOR OF SCIENCE

Program: T.Y.B.A. and T.Y. B.Sc.

Course: Geography

Semester - V and VI at the T.Y.B.A. and T.Y. B.Sc.

Paper IV to IX

(Credit Based Semester and Grading System (CBSGS)with effect from the academic year 2018-19)

University of Mumbai
Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V, Paper – IV
Subject Title: GEOGRAPHY OF SETTLEMENTS
COURSE CODE: _____ (2018-19), Credit: __04_____

	UNIT – I: Introduction of Settlement Geography	No. of Lectures
1.1	Settlement geography: definitions, nature and scope	**12**
1.2	Settlement types, their characteristics and differences	
1.3	Factors influencing growth and distribution of settlements	
1.4	Importance of settlement studies in geography	
	UNIT – II: Geography of Rural Settlements	**12**
2.1	Origin and growth of settlements - evolution of rural settlements	
2.2	Site and situation of rural settlements	
2.3	Classification of rural settlements on the basis of population and patterns	
2.4	Classification of rural settlements on the basis of spacing and functions	
	UNIT – III: Rural Settlements in India	**12**
3.1	Distribution and density of rural settlements in India	
3.2	Structure of house and building materials in India	
3.3	Regional variations in rural settlement patterns in India	
3.4	Morphology of rural settlement in India	
	UNIT – IV: Urban Settlements	**12**
4.1	Origin and growth of urban settlements	
4.2	Classification of urban settlements on the basis of culture and functions	
4.3	Hierarchy of urban Settlement: rank size rule and primate city	
4.4	Ashok Dutts's models of South Asian city: port city and bazaar city	
	UNIT – V: Urban Settlements in India	**12**
5.1	Urbanisation in India: Trends, patterns and types of towns	
5.2	Morphology of urban settlements in India (With reference to a port and inland city)	
5.3	Urban problems in Indian cities	
5.4	Smart city: Concept, need and implementation in India	

REFERENCES:

- Desphpande, C. D. (2005): "Cities: A Geographical Study", Translated by V. G. Amrite, Manan Prakashan, Mumbai
- Gharpure, V. (2013): "Nagari Bhugol", (Marathi) Pimpalapure and Company Publishers, Nagpur
- Gharpure, V. (2013): "Vasti Bhugol", (Marathi) Pimpalapure and Company Publishers, Nagpur
- Gharpure, V. (2017): "Manavi Bhugol", (Marathi) Pimpalapure and Company Publishers, Nagpur
- Ghosh. S. (2015): "Introduction to Settlement Geography", Orient Blackswan Private Limited, Hyderabad
- Jyptirmoy Sen (2007): A Text Book of Social and Cultural Geography," Kalyani Publsiher, New Delhi.
- Knowles, R and Wareing, J. (1996): "Economic and Social Geography", the Made Simple Series, Rupa & Co., Calcutta
- Leong, Goh-Cheng and Morgan, G. (1994): "Human and Economic Geography", Oxford University Press, Oxford
- Noble, A. (1998): "Using Descriptive Models to Understand South Asian Cities", *Education About Asia*, Vol. 3, No. 3, Downloaded from http://aas2.asian-studies.org/EAA/EAA-Archives/3/3/205.pdf
- Siddhartha, K and Mukherjee, S. (2016): "Cities, Urbanisation and Urban Systems (Settlement Geography)", KitabMahal, Allahabad
- Singh, L. R. (2009): "Fundamentals of Human Geography", Sharda Pustak Bhawan, Allahabad
- Singh, R. Y. (2012): "Geography of Settlements", Rawat Publications, Jaipur
- Tiwari, R. C. (2016): "Geography of India", Pravalika Publications, Allahabad
- Thakur S. A. and others – "Settlement Geography"/ *Vasti Bhugol*- Konkan Geographers, Publication (2012)
- घारपुरे विठ्ठल (१९९९)वस्ती भूगोल, पिंपळापुरे अँड कं.,नागपूर

- सावंत प्रकाश (१९९८) नागरी भूगोल, फडके प्रकाशन, कोल्हापूर
- सवदी ए,बी. (२०१०) नागरी भूगोल, निराली प्रकाशन, पुणे

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

University of Mumbai
Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V Paper: V-A
GEOGRAPHY OF MAHARASHTRA

COURSE CODE: _____, Credit: _04_____

Unit-I : Maharashtra: Geographical Setting		TOTAL LECTURES
1.1	Location, extent and boundaries	12
1.2	Administrative setup and divisions	
1.3	Relief and climate	
1.4	Drainage system	
Unit-II : Natural Resources		12
2.1	Soils	
2.2	Natural vegetation	
2.3	Minerals	
2.4	Power resources	
Unit-III : Human Resources		12
3.1	Population growth	
3.2	Distribution –urban-rural and population density	
3.3	Structure of population : Age-sex	
3.4	Occupational structure of population	
Unit-IV :Agriculture, Fishing and Livestock Resources		12
4.1	Salient features of agriculture	
4.2	Agricultural regions, recent issues and policies	
4.3	Fisheries, recent issues and policies	
4.4	Livestock resources recent issues and policies	
Unit-V: Industries, Trade and Transport		12
5.1	Major industrial regions	
5.2	Role of transport in industrial development	
5.3	Industrial issues and policies	
5.4	Trade and transport	

References:

- Jaymala Diddee, S.R. Jog, V.S. Kale Geography of Maharashtra
- Johns: Economic Geography -
- Khullar: Geography of India
- Majid Hussein: Geography of India
- Oxford: Oxford School atlas-
- Savinder Singh Environmental Geography
- Sharma: India's economic and commercial geography
- **प्रा.सवदी**: **महाराष्ट्रभूगोल**
- **देशपांडेएसएस**: **महाराष्ट्राचेअर्थशास्त्र**
- **महाराष्ट्राचाभूगोल - प्रा.सी.डीदेशपांडे**
- **महाराष्ट्र- सवदीआणिकेचे**
- **महाराष्ट्राचाभूगोल - बी.अरूणाचलम**
- **महाराष्ट्र** 2006 - **संतोषदास्ताने**
- **जनगणनाऑटलस – महाराष्ट्रसरकार**
- **महाराष्ट्राचेनकाशे–डॉ.के.आरदिक्षित**
- **महाराष्ट्रातीलजलसंपदा- प्रा. डॉ.एस.व्ही.ढमढेरे**
- **महाराष्ट्रातीलनद्या – श्रीकांततापीकर**
- **महाराष्ट्राचाभूगोल – डॉ.सुरेशफुले**

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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University of Mumbai
Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V, Paper : V-B

Subject Title: POPULATION GEOGRAPHY
COURSE CODE: _____, Credit: 04_____

UNIT- I, Introduction to Population Geography		**TOTAL LECTURES**
1.1	Concept, definition, nature, scope, importance	**12**
1.2	Evolution and recent trends	
1.3	Basic sources of population data and their important elements	
1.4	Population geography and other social sciences	
UNIT- II, Population Dynamics		**12**
2.1	Population growth in the world (continent wise and level of development)	
2.2	Population growth in India	
2.3	World : Population density and its determinants	
2.4	Structure of population in developed and developing world (Age and Sex, Rural and Urban)	
UNIT- III, Theories of Population Growth		**12**
3.1	Demographic Transition Model	
3.2	Malthu's Population Theory	
3.3	Leibestein's motivational theory of population growth	
3.4	Theory of optimum population	
UNIT- IV, Migration		**12**
4.1	Definition and Classification of Migration	

4.2	Causes and Consequences of Migration	
4.3	Recent trend of migration in India	
4.4	Issues of infiltration and its impacts in India	
UNIT- V, Contemporary Issues		**12**
5.1	Ageing population	
5.2	Gender issues -declining sex ratio, literacy gap,	
5.3	Poverty and unemployment in India	
5.4	Rapid urbanization in India	

Reference:

- Bhende A. and Kanitkar T.,(2000):*Principles of Population Studies*, Himalaya Publishing House
- ChandnaR.C.andSidhuM.S.,1980:*An Introduction to Population Geography*, Kalyani Publishers
- Chandna, R C (2006), Jansankhya Bhugol, Kalyani Publishers, Delhi
- Chandna, R C (2014),: Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, Delhi
- Tiwari Ram Kumar (2015) Jansankhya Bhugol PravalikaPublication, Allahabad
- Thakur, Patil, Datta, Pednekar, Roy, and Kamble (2016):*Population Geography*, Konkan Geographers Association in India
- Roy. D. (2015) Population Geography, Books &Allied Publication, Kolkata

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or	20 Marks

	Two short answer questions each 10 Marks	
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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University of Mumbai
Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V. Paper No: VI

Subject Title: TOOLS AND TECHNIQUES IN GEOGRAPHY FOR SPATIAL ANALYSIS-I (Practical)

COURSE CODE: _____, Credit: __03_____

Unit -I	Map Projections	Lectures
		09
	1.1. Basic Concepts – Definition, scale, direction, azimuth, graticule, great circle, true meridian, types of projections, choice of projections	
	1.2. Zenithal Polar Projections – Equal Area, Equidistant	
	1.3. Cylindrical Projections - Equal Area, Equidistant	
	1.4. Conical Projections - One standard parallel, two standard parallel	
Unit-II	**Map Basic**	
	2.1. Basic elements of map and calculation or identification of relief, direction, bearing and distance	09
	2.2. Area calculation with square method and strip method	
	2.3. Demarcation of watershed on toposheet, Tracing of stream network and contours	
Unit-III	**Survey of India Toposheets**	
	3.1. Signs and symbols, marginal information	09
	3.2. Study of physiography, drainage and vegetation (one full toposheet of hilly and plateau region each)	
	3.3. Study of settlements – size, pattern, utilities (one full toposheet of plains and urban region each)	
	3.4. Study of transport network (one full toposheet of plains and urban area each)	
Unit-III	**Preparation of Thematic maps (Manually)**	
	4.1. Preparation of a district thematic maps with actual data- Dot and Pictogram	09
	4.2. Preparation of a district thematic maps with actual data- Choropleth and Isopleth	
	4.3. Preparation of a district thematic maps with actual data- Located bar, located circle and pie chart	
Unit-V	**Use of computers in geographical data representation**	
	5.1. Construction of line graphs & simple and multiple bar graphs	09

	using MS-excel	
	5.2. Construction of divided bar graphs & pie charts using MS-excel	
	5.3. Preparation of datasheet in SPSS	
	5.4. Calculation of central tendency and standard deviation using SPSS	

References -

- Ahirrao ani Karanjkhele – **प्रात्यक्षिक भूगोल**,
- Karlekar Shrikant- **प्रात्यक्षिक भूगोल**, **डायमंड पब्लिकेशन्स**
- KarlekarShrikant- Bhoogol shastratil Sanshodhan Paddhati, **डायमंड पब्लिकेशन्स**
- Monkhouse F.J. - Maps & Diagrams, Methuen and Co., London, 1971 (3rd Edition, Revised).
- NCERT - Textbook for Class-12, Practical Work in Geography Part II
- Peter A. Rogerson - Statistical Methods for Geography, Sege Publishers -2001
- Robinson A.H. - Elements of Cartography, Wiley
- Sarkar Ashis - Practical Geography, Orient Black Swan – 2015
- Sarkar Ashis –Quantitative Geography, Orient Black Swan – 2013
- Singh R.L. & Singh P. B. - Elements of Practical Geography, Kalyani Publishers 2005
- Stoddard Robert – Field techniques and research methods in geography, Geography faculty publication http://digitalcommons.unl.edu/geographyfacpub/26
- Thakur S. A. - **प्रात्यक्षिक भूगोल**, Konkan Geographer's publication (2016)

QUESTION PAPER PATTERN
(SEM - VI)
MARKS: - 100 TIME: 4 HRS

N.B:

1. All questions are compulsory.
2. Figures to the right indicate marks to a sub-question.
3. Use of map stencils and simple calculator is allowed.

Q. 1	Unit-I	16 Marks
Q. 2	Unit–II	16 Marks
Q. 3	Unit–III	16 Marks
Q. 4	Unit–IV	16 Marks
Q. 5	Unit–V	16 Marks
Q. 6	Journal and Viva	20 Marks

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Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V, Paper – VII

Subject title: REGIONAL PLANNING AND DEVELOPMENT

COURSE CODE: _____ (2018-19), Credit: 04____

UNIT – I: Understanding Regional Planning		No. of Lectures
1.1	Planning: Concept, types and need	12
1.2	Regional planning: Concept, nature, relation with Geography	
1.3	Role of surveys and geospatial technology in regional planning	
1.4	Problems associated with regional planning	
UNIT – II: Concept of Region in Planning		12
2.1	Region: Concept, types and delineation	
2.2	Planning Regions: Need, characteristics and hierarchy	
2.3	Demarcation of planning regions: Principles, criteria and methods	
2.4	Perroux's Growth Pole Theory and regional planning	
UNIT – III: Understanding Regional Development		12
3.1	Development: Concept and indicators	
3.2	Regional disparities in development: Concept and measurements	
3.3	Spatial and Non-Spatial Models of Development with Special Reference to Rostow's Model and Myrdal's Model	
3.4	Strategies for regional development	
UNIT – IV: Regional Planning in India – I		12
4.1	Five-Year Plans: Features, achievements and failure	
4.2	Multi-level planning in India	
4.3	Planning regions of India	
4.4	Changing planning mechanism of India: NITI Ayog	
UNIT – V: Regional Planning in India – II		12
5.1	Micro level planning in rural area	
5.2	Backward area development programme	
5.3	Urban fringe of Indian cities: Problems and planning	
5.4	Metropolitan Planning: A Case of Mumbai Metropolitan Region	

REFERENCES:

- Chand, Mahesh (2000): "Regional Planning In India", Allied Publishers Ltd., Mumbai
- Chandana, R. C. (2016): "Regional Planning and Development", Kalyani Publishers, New Delhi
- Dhamdhere, S. et al (2015): "Arthik Vikas Ani Niyojan", (Marathi), Diamond Publications, Pune
- Dikshit, J. K. (2011): "The Urban Fringe of Indian Cities: Professor Jaymala Diddee Felicitation Volume", (ed.) Rawat Publications, Jaipur
- Jhingan, M. L. (2017): "The Economics of Development and Planning", Vrinda Publications (P) Limited, Delhi
- Kant, S. et al (2004): "Reinventing Regional Development: Festschrift to Honour Gopal Krishnan", (ed.) Rawat Publications, Jaipur
- Misra, R. P. (2002): "Regional Planning", Concept Publishing Co., New Delhi
- NITI Ayog (2017): "Three Year Action Plan (2017-18 to 2019-20)", NITI Ayog, New Delhi
- Tiwari, R. C. (2016): "Geography of India", Pravalika Publications, Allahabad

Books for further reading:

- Bhargava, G. (2001): "Development of India's Urban, Rural, and Regional Planning in 21st Century: Policy Perspective", Gyan Publishing House, Delhi
- Datt, G. And Mahajan, A. (2016): "Datt and Sundaram's Indian Economy", S. Chand Publishing, New Delhi
- Devi, Laxmi (2000): "Planning Development and Regional Disparities", (ed.) Anmol Publications, New Delhi
- Dhamdhere, S. and Shinde, S. (2010): "Bhartiya Ani Jagtik Arthik Vikas" (Marathi), Diamond Publications, Pune
- Hall, P. (2016): "Urban and Regional Planning" Routledge, London
- Knowles, R and Wareing, J. (1996): "Economic and Social Geography", the Made Simple Series, Rupa& Co., Calcutta

- Sundaram, K. V. (1985): "Geography and Planning: Essays in Honour of Prof. V. L. S. PrakasaRao", Concept Publishing Co., New Delhi

- Sundaram, K. V. (1989): "Regional Planning and Development: Essays on Space, Society, and Development in Honour of Professor R. P. Misra", Heritage Publishers, New Delhi

- Vidyarthi, A. et al (2017): "Understanding India's New Approach to Spatial Planning and Development: A Spatial Shift?", Oxford University Press, New Delhi

- Yojana, Monthly Journal Published in English and Marathi by Government of Maharashtra

IMPORTANT WEBSITES / WEB LINKS:

mmrda.maharashtra.gov.in

niti.gov.in

planningcommission.gov.in

yojana.gov.in

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks	20 Marks

	or Two short answer questions each 10 Marks	
Q. 4	Long answer question on Unit-IV	20 Marks
OR		
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
OR		
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A./T.Y.B.Sc. Geography, Semester – V, Paper – VIII - A

Subject Title: GEOGRAPHY OF RESOURCES

COURSE CODE: _____ (2018-19), Credit: ___04_____

UNIT – I: Introduction to the Resources		TOTAL LECTURES
1.1	Meaning and importance of the natural resources	12
1.2	Factors influencing on resource utilization and related theories	
1.3	Classification of resources	
1.4	Issues with renewable and non-renewable resources	
UNIT – II: Natural resources: over exploitation and conservation measures		12
2.1	Over exploitation and depletion of natural resources	
2.2	Resource consumption pattern in the developed and underdeveloped countries	
2.3	Need and measures for resource conservation	
2.4	Sustainable use of natural resources	
UNIT – III: Natural Resources, Part –I		12
3.1	Distribution of water resources on the Earth	
3.2	Water consumption pattern, water pollution and water conservation	
3.3	Distribution of forest resources in the world	
3.4	Deforestation and forest conservation	
UNIT – IV: Natural Resources Part –II		12
4.1	Soil composition and factor affecting soil formation	
4.2	Soil degradation and its conservation	
4.3	Minerals and their classification	
4.4	Use of energy minerals and their conservation	
UNIT – V: Human Resources		12
5.1	Concept of human resource: skilled and unskilled workers	
5.2	Distribution of population in the world	
5.3	Concept of over, under and optimum population	
5.4	Population Resource regions	

Reference Books:

1. Chandna R.C. (2014): Geography of Population, Kalyani Publishers, Ludhiana, India

2. Gautam Alka (2010) Environmental Geography: Sharda Pustak Bhavan, Allahabad

3. GautamAlka: 2013: Advanced Economic Geography, Sharda Pustak Bhawan, Allahabad, India, Third Edition

4. Gautam Alka: Resource Geography, Sharda Pustak Bhawan, Allahabad, India,

5. Husain Majid, 2003: Resources Geography, Anmol Publications Pvt. Ltd. (2003) ISBN: 9788170418764

6. Khullar D. R. (2014) India: A Comprehensive Geography, Kalyani Publishers, ISBN-13**:** 978-9327246759

7. Mondal P and Dalai (2017) Sustainable Utilization of Natural Resources: CRC Press (2017) ISBN 9781498761833

8. Singh Savinder (2015): Environmental Geography: Prayag Pustak Company, Allahabad

9. Singh Vipul (2012) The Human Footprint on Environment: Issues in India, Macmillan Publishers India Pvt. Ltd, ISBN: 935-059-098-0

10. Verma C.L. (2014): Economic and Resource Geography, Forward Books; 1ST edition (2014) ISBN-10: 9381763534

11. Website: https://www.researchgate.net/publication/280298490_Resource_Geography

12. William A.: Nonfuel Minerals and the World Economy", Vogely, World Resources Institute Book Yale University Press

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks

Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester –V, Paper: VIII-B

Subject Title: GEOGRAPHY OF HEALTH

COURSE CODE: _____, Credit: 04___

Unit I - Introduction to Geography of Health		**TOTAL LECTURES**
1.1	Nature, scope and evolution geography of health	**12**
1.2	Conceptual background and components geography of health	
1.3	Significance and approaches geography of health	
1.4	Relation of geography of health with other branches of social science	
Unit- II -The Pollution Syndrome		**12**
2.1	Air Pollution: Causes, Effects and remedial measures	
2.2	Water Pollution: Causes, Effects and remedial measures	
2.3	Radioactive Pollution: Causes, Effects and remedial measures	
2.4	Plastic Pollution: Causes, Effects and remedial measures	
Unit III - Geography of Diseases		**12**
3.1	Weather-related diseases and climate change and Global health	
3.2	Types of diseases and their regional pattern	
3.3	Case studies of communicable diseases –malaria and HIV – Aids	
3.4	Case studies of non-communicable diseases – cancer and malnutrition	
Unit IV -Health and Environment		**12**
4.1	Linkages of health with environment	
4.2	Relation between development and health	
4.3	Population dynamics, urbanisation, poverty and inequality	
4.4	Migration and related health issues	
Unit V - Health Care Facilities		**12**
5.1	Health care facilities in India	
5.2	Spatial Distribution of health care facilities in Maharashtra	
5.3	Health care policies in India	
5.4	Health Organisations: WHO, UNISEF, Red Cross Society and NGOs	

References

1. Alice E. Marczewski and Michael Kamrin: Toxicology for the Citizen.
2. B. Brockband, J.Cohrsson, and V.T. Covello: The Risk Assessment Manual: A Guide to Understanding and Using Health and Environmental Assessments
3. Marilyn O. Ruiz: Geography of Disease
4. Michael Emch, Elisabeth Dowling Root, and Margaret Carrel: Health and Medical Geography Fourth Edition
5. Rhonda Humbird: AP Environmental Science - Part 1: The Living World

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
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	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks

Q. 5	Long answer question on Unit-V	20 Marks
OR		
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V, Paper: VIII-C

Subject Title: GEOGRAPHY OF DISASTER MITIGATION and MANAGEMENT

COURSE CODE: _____, Credit: __04_____

UNIT – I , Meaning & Concept of Disaster & Hazard		No. of Lectures
1.1	Concepts of Disaster, Hazard, Vulnerability and Risks	12
1.2	Typology of hazards & Disasters- Natural Disasters & Man-made Disasters	
1.3.	Impacts of Disasters – Socio–economic and political	
1.4.	Need of Disaster Management in India	
UNIT – II, Elements of Disaster Management		
2.1.	Disaster Management : Meaning & Concept	12
2.2.	Role of International Organisations for Disaster Management – UNISDR, INSARAG, Red Cross	
2.3	Role of National Organisations for Disaster Management	
2.4	Role of NGOs & Community in Disaster Management	
UNIT – III, Disaster Management : Methods & Approaches		
3.1	Disaster Management : Historical Perspective	12
3.2	Disaster Management : Methods & Approaches	
3.3	Pre- Disaster Stage of Management	
3.4	Post- Disaster Stage of Management	
UNIT- IV, Natural Disaster and its Management in India		
4.1	Earthquake & Tsunami –Causes, Effects, Management	12

4.2	Flood – Distribution, Causes, Effects , Management	
4.3	Cyclone – Distribution, Causes, Effects , Management	
4.4	Famine – Distribution, Causes, Effects , Management	
UNIT –V, Anthropogenic Disaster and its Management in India		
5.1	Industrial Hazards – Causes, effects and management with reference to Bhopal Gas Tragedy	12
5.2	Terrorism – Causes, effects and management with reference to 26/11 Mumbai attack	
5.3	Wild Fire – Types, Causes, effects and management with reference to Uttarakhand forest fire 2016	
5.4	Accidents - Causes, effects and management with reference to Savitri river bridge collapse accident August 2016	

References:

1. Coppola, D.P. (2011): Introduction to International Disaster Management. Elesvier, Butterworth- Heinemann
2. Dasgupta R. (2007): Disaster Management and Rehabilitation, Mittal Publications. New Delhi
3. Govt. Of India : Disaster Management in India , Ministry of Home Affairs, New Delhi
4. Murthy, D.B.N. (2008) : Disaster Management, Deep & Deep Publications Pvt. Ltd., New Delhi
5. Singh, Savindra and Singh, Jeetendra (2016) : Disaster Management, Pravalika Publications, Allahabad
6. गोडबोले, मराठे: आपत्ती व्यवस्थापन संकल्पना,डायमंड पब्लिकेशन्स, पुणे.
7. पठारे संभाजी, अजय चाकाने: आपत्ती निराकरण, डायमंड पब्लिकेशन्स, पुणे.
8. मोरे जोतीराम, अर्जुन मुसमाडे: आपत्ती व्यवस्थापनाचा भूगोल, डायमंड पब्लिकेशन्स, पुणे.

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
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	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

University of Mumbai
Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A. / T.Y.B.Sc. Geography, Semester – V, Paper – IX
Subject Title : GEOSPATIAL TECHNOLOGY

Course Code: Creadit-0 3

UNIT - I	**Remote Sensing – I**	**9**
1.1	Geospatial Technology: Concept, Components and Importance	
1.2	Remote Sensing: Concept, Process and Geographical Applications	
1.3	Electromagnetic Energy, EMR and EMS - Spectral Reflectance and Spectral Signature or Curve - Platforms, Sensors and Resolution	
1.4	Elements of Visual Image Interpretation - Mapping of Thematic Layers and Visual Image Interpretation of Physical and Manmade Features	
UNIT - II	**Remote Sensing – II**	**9**
2.1	Digital image analysis: landuse and landform classification, 3D view of DEM	
2.2	Aerial Photographs: Concept, Process and Types	
2.3	Interpretation of Aerial Photographs	
2.4	Advanced Remote Sensing Technology - Use of Bhuvan website	
UNIT - III	**Global Positioning System**	
3.1	GPS : Concept, Segments, Applications	
3.2	Types of GPS – GPS Data Accuracy and Errors	
3.3	Factors Affecting GPS Data - Global Navigation System	
3.4	Ground Survey and Demarcation of Point, Line and Polygon Features with GPS Device – Transfer GPS Data to Computer with Softwares like Easy GPS	
UNIT - IV	**Geographic Information System – I**	**9**
4.1	GIS : Concept, Components and Applications - Map Projection and Coordinate System	
4.2	GIS Data Acquisition and Types	
4.3	Importing Image into GIS Software and Geo-referencing	
4.4	Creating Layers by Digitization of Point, Line and Polygon Features	
UNIT V	**Geographic Information System – II**	**9**
5.1	Functions of Database Creation – Input, Editing and Linking	
5.2	Spatial Database Analysis: Overlay, Merge, Query	
5.3	Using Map-Composer for Map Layout and Design	
5.4	Preparation of Thematic Maps	

	Paper – IX : GEOSPATIAL TECHNOLOGY Question Paper Pattern	
Q. 1	Unit –I	16
Q. 2	Unit –II	16
Q. 3	Unit –III	16
Q. 4	Unit –IV	16
Q. 5	Unit –V	16
Q. 6	Preparation Thematic Maps by using Geospatial Technology Tools	10
Q. 7	Journal and Viva	10

References:

1. कार्लेकर, श्रीकांत (२००६): भौगोलिक माहिती प्रणाली, डायमंड प्रकाशन, पुणे.
2. कार्लेकर, श्रीकांत (२०१२): दूर संवेदन, डायमंड प्रकाशन, पुणे.
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8. Bhatia, S. C. (2008): Fundamentals of Remote Sensing, Atlantic Publishers and Distributors (P) Limited, New Delhi.
9. Bhatta Basudeb 2016: Remote Sensing and GIS, Oxford University Press, New Delhi
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15. Central Board of Secondary Education (New Delhi): Geospatial Technology – Textbook, Class XI and XII

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19. George Joseph (2013): Fundamentals of Remote Sensing, Second Edition, Universities Press (India) Private Limited, Himayatnagar, Hyderabad.
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23. Jonson. R. J. (2003): Remote Sensing of the Environment-An Earth Resources Perspective
24. Kang-Tsang Chang (2010): Introduction to Geographic Information Systems, Tata McGraw Hill Edition, New Delhi.
25. Lillesand and Keifer (2010) Remote Sensing and Image Interpretation, Fourth Edition, Wiley.
26. Pearson Education Series in Geographical Information Science, Keith C. Clarke (Series editor) Pearson Educators Private Limited. (Singapore), New Delhi.

27. Monkhouse, F. J. and H. R. Wilkinson, (1971): Maps and Diagrams, Methuen & Co. Ltd., London.
28. Robinson, A. H. and Others (1995): Elements of Cartography, VI Edition, John Wiley & Sons, New York.
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34. https://www.isro.gov.in
35. *https://www.iirs.gov.in/*

SEMESTER –VI

University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester – VI, Paper: IV

Subject Title: ENVIRONMENTAL GEOGRAPHY

COURSE CODE: _____ Credit: 04

UNIT -I	**Introduction to Environmental Geography**		**No. of Lectures**
	1.1	Environmental Geography: Definition, Nature, Scope and Importance	**12**
	1.2	Environment: Meaning, Factors and Types	
	1.3	Approaches to the Study of Man – Environment Relationship	
	1.4	Changing Man - Environment Relationship in Historical Perspective	
UNIT-II	**Ecosystem**		**12**
	2.1	Meaning and Structure of Ecosystem	
	2.2	Ecological Pyramids and Productivity of Ecosystem	
	2.3	Functions of Ecosystem: Food Chain & Web, Energy Transfer, Biogeochemical Cycles	
	2.4	Types of Ecosystems: Aquatic, Terrestrial, and Aqua-Terrestrial Ecosystems	
UNIT-III	**Biodiversity**		**12**
	3.1	Biodiversity: Concept, Types and Distribution	
	3.2	Biodiversity Hotspots: Concept, and Distribution in India with Special Reference Western Ghats	
	3.3	Threat to Biodiversity: Causes	
	3.4	Conservation of Biodiversity and Management of Biological Reserves	
UNIT-IV	**Environmental Challenges in India**		**12**
	4.1	Air pollution and Water Pollution: Cases and Effects	
	4.2	Land and Noise Pollution: Cases and Effects	
	4.3	Environmental Issues Related to High/large Dams	
	4.4	Major environmental Movements in India	
UNIT-V	**Sustainable Development and Environmental Management**		

	5.1	Concepts and Need of Sustainable Development and Environmental Management	**12**
	5.2	Eco-friendly Lifestyle and Need of Environmental Education	
	5.3	Biosphere Reserves and Wildlife Management in India	
	5.4	Environmental Impact Assessment	

Reference book:

- Bharucha, E. (2004): "A Textbook for Environmental Studies", University Grants Commission, New Delhi, Downloaded from https://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf
- Cunningham, W, and Cunnigham, M. (2017): "Principles of Environmental Science: Inquiry and Applications", McGraw Hill Education, Delhi
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- Karlekar, S. and Borges, J. (2008): "Diamond Bhugol- Paryavaran Shatra Kosh", (Marathi), Diamond Publications, Pune
- Rajagopalan, R. (2016): "Environmental Studies: From Crisis to Core", Oxford University Press, New Delhi
- Sangle, S. (2017): "Paryavaran Bhugol", (Marathi), Diamond Publications, Pune
- Saxena, H. (2017): "Environmental Geography", Rawat Publishers, Jaipur.
- Singh, S. (2017):"Environmental Geography", Prayag Pustak Bhawan, Allahabad
- Parmar and other –"Pryavaran Bhugol" Himalaya Publishing House – Mumbai 2013
- Thakur and other - –"Pryavaran Bhugol" Konkan Geographer's Publication

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

University of Mumbai
Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)
T.Y.B.A. / T.Y.B.Sc. Geography, Semester – VI
Paper No. – V -A
GEOGRAPHY OF TOURISM and RECREATION

COURSE CODE: _____, Credit: ___04_____

	Unit-I -Introduction to Tourism Geography	**TOTAL LECTURES**
1.1	Definition , Nature and Scope	**12**
1.2	Trends of Tourism Development in World	
1.3	Factors of Tourism Development - Geographical components	
1.4	Factors of Tourism Development - Socio-cultural and political	
	Unit-II Types & Impact of Tourism	**12**
2.1	Types of Tourism,	
2.2	New Trends in Tourism,	
2.3	Positive impact of Tourism on Environment, Socio-culture and Economy	
2.4	Negative Impact of Tourism on Environment, Socio-culture and Economy	
	Unit-III - Infrastructure of Tourism and Ancillary Services	**12**
3.1	Accommodation	
3.2	Transportation	
3.3	Travel Agencies and Tour Guide	
3.4	Documentation and Ticketing	
	Unit-IV - Planning of Tourism and Organisation	**12**
4.1	Need of Planning and Elements of Planning	
4.2	Levels of Planning	
4.3	Tourism Organizations - IATA, PATA, I.T.D.C. and M.T.D.C	
4.4	Incredible India campaign	
	Unit-V Potential Tourism Sectors in Maharashtra and Tourism Policy	**12**
5.1	Coastal tourism in Maharashtra	
5.2	Adventure tourism in Sahyadri	
5.3	Heritage tourism in Maharashtra	
5.4	Tourism Policy of Maharashtra State	

- **Reference Books**

1. Anand M.M., Tourism & Hotel Industry in India, Prentice Hall of India, New Delhi,

2. Bhatia A.K., Tourism Development, Sterling Publishers Pvt. Ltd. New Delhi.
3. Bhatia A.K., International Tourism, Sterling Publishers Pvt. Ltd. New Delhi
4. Bhatia A.K.,- Tourism in India , Sterling Publishers Pvt. Ltd. New Delhi
5. Geetanjali, Tourism Geography, Centrum press publishers, New Delhi
6. T.K. Sathyadev, P. Manjunath- Tourism Planning, Pacific books Internationals, Delhi.
7. Thakur S A (2016) : पर्यटन भूगोल, Konkan Geographer's Publication
8. घारपुरे ,विठ्ठल) २०१०:(पर्यटन भूगोल ,पिंपळापुरेआणिप्रकाशक ,नागपूर.

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or	20 Marks

	Two short answer questions each 10 Marks	
Q. 5	Long answer question on Unit-V	20 Marks
OR		
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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UNIVERSITY OF MUMBAI

Syllabus for T.Y.B.A. Geography

(CBSGS with effect from Academic Year 2018-19)

SEMESTER-VI, Paper No. V -B

Subject Title: POLITICAL GEOGRAPHY

COURSE CODE: _____ (2018-19), Credit: __04_____

Units	Name of the Unit/Subunit	No of Lectures
Unit – 1. : Introduction of Political Geography		**(12)**
1.1	Definition, Nature and Scope of Political Geography	
1.2	Historical Development and Recent Trends in Political Geography	
1.3	Concept of state and factors	
1.4	Concept of Nation, Nation-State, and Nationalism	
Unit – 2. : Approaches and Concepts in Political Geography		**(12)**
2.1	Hartshorne's Fundamental Approach: Centrifugal and Centripetal Forces	
2.2	Unified Field Theory	
2.3	Core Areas: Concept, Characteristics, and Distribution	
2.4	Capitals: Concept, Functions, and Classification	
Unit – 3. : Frontiers and Boundaries		**(12)**
3.1	Frontiers and Boundaries: Concepts and Distinction	
3.2	Functions of Frontiers and Boundaries	
3.3	Classification of Boundaries	
3.4	India's Boundaries: Characteristics and Disputes	
Unit – 4. : Geostrategic and Geopolitical Views		**(12)**

4.1	Mackinder's Heartland and Spykman's Rimland Model	
4.2	Geopolitics of Indian Ocean	
4.3	Geopolitics of International Water Disputes with Special Reference to India	
4.4	Changing Political Map of India	
Unit – 5. : Electoral Geography		**(12)**
5.1	Concept, Nature and Approaches of Electoral Geography	
5.2	Geography of Voting: Geographical Factors Affecting Elections	
5.3	Spatial Organisation of Electoral Areas and Geography of Representation	
5.4	Challenges to Election System in India	

Reference Books:

- Adhikari, S. (2015): "Political Geography", Rawat Publications, Jaipur
- Adhikari, S. (2011): "Political Geography of India: A Contemporary Perspective", Sharda Pustak Bhawan, Allahabad
- Dikshit R. (1985): "Political Geography: A Contemporary Perspective" McGraw, Hill, New Delhi
- Dikshit, S. (1993): "Electoral Geography of India", Vishwavidyalaya Prakashan, Varanasi
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- Jones, M. (2004): "An Introduction to Political Geography: Space, Place and Politics", Routledge
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- घारपुरेविठ्ठल (२०१३)राजकीयभूगोल, पिंपळापुरेअँडकं.,नागपूर
- लाटकर, आपटे (१९९८)राजकीयभूगोल, विद्याप्रकाशन, नागपूर
- पाटीलविलास (२०१५)राजकीयभूगोल, प्रशांतपब्लिकेशन, जळगाव

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester –VI, Paper No: VI

Subject Title: TOOLS AND TECHNIQUES IN GEOGRAPHY FOR SPATIAL ANALYSIS-II (Practical)

COURSE CODE: _____, Credit: __03_

Unit -I	**Nature of data and central tendency**	Lectures
	1.1. Meaning and types of data, variable, observation, observation value, simple, discrete data and continuous data	09
	1.2. Frequency Distribution, Histogram, Frequency Polygon and Ogive	
	1.3. Measures of Central Tendency- mean, median and mode	
Unit -II	**Dispersion and Deviation**	
	2.1.Mean Deviation and Quartile Deviation	09
	2.2. Standard Deviation	
	2.3. Moving Averages (3 years and 5 years)	
Unit -III	**Correlation, Regression & Hypothesis Testing**	
	3.1. Calculation of correlation coefficient - Pearson's and Spearman's methods	09
	3.2. Regression analysis	
	3.3. Chi square test	
Unit-IV	**Sampling**	
	4.1. Sample and sample design in geography	09
	4.2. Point sampling –Systematic and random	
	4.3. Line sampling – Systematic and random	
	4.4. Area sampling – Systematic and random	
Unit-V	**Field work in Geography of any one place/village**	09
	5.1. C**ollection of physiographic data** – Field observation, field sketching, collection of soil and rock samples, identification of vegetation etc.	
	5.2. C**ollection of socio-economic data** – interviews, questionnaire survey, visit to local governing office, NGO's etc.	
	5.3. C**ollection of geospatial data** – toposheets, aerial photographs, Google images/maps, Bhuvan images etc.	
	To prepare a geographical report **of a place** with the help of an available 5.1, 5.2, and 5.3 aspects	

References -

- Ahirrao ani Karanjkhele – **प्रात्यक्षिक भूगोल**,
- Karlekar Shrikant- **प्रात्यक्षिक भूगोल**, **डायमंड पब्लिकेशन्स**
- Karlekar Shrikant- Bhoogol shastratil Sanshodhan Paddhati, **डायमंड पब्लिकेशन्स**
- Monkhouse F.J. - Maps & Diagrams, Methuen and Co., London, 1971 (3rd Edition, Revised).
- NCERT - Textbook for Class-12, Practical Work in Geography Part II
- Peter A. Rogerson - Statistical Methods for Geography, Sege Publishers -2001
- Robinson A.H. - Elements of Cartography, Wiley
- Sarkar Ashis - Practical Geography, Orient Black Swan – 2015
- Sarkar Ashis –Quantitative Geography, Orient Black Swan – 2013
- Singh R.L. & Singh P. B. - Elements of Practical Geography, Kalyani Publishers 2005
- Stoddard Robert – Field techniques and research methods in geography, Geography faculty publication http://digitalcommons.unl.edu/geographyfacpub/26

QUESTION PAPER PATTERN
(SEM - VI)
MARKS: - 100 TIME: 4 HRS

N.B:

4. All questions are compulsory.
5. Figures to the right indicate marks to a sub-question.
6. Use of map stencils and simple calculator is allowed.

Q. 1	Unit-I	16 Marks
Q. 2	Unit–II	16 Marks
Q. 3	Unit–III	16 Marks
Q. 4	Unit–IV	16 Marks
Q. 5	Unit–V	16 Marks
Q. 6	Journal and Viva	20 Marks

University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester – VI, Paper – VII

Subject Title: ECONOMIC GEOGRAPHY

COURSE CODE: _____ (2018-19), Credit: __04_____

Units	Name of the Unit/Subunit	No of Lectures
Unit – 1. : Introduction of Economic Geography		**(12)**
1.1	Definition, Nature, Scope and Branches of Economic Geography	
1.2	Approaches of Economic Geography and Relation with other social sciences	
1.3	Concept and Operation of Economy	
1.4	Resources: Concept, Classification and Importance in Economy	
Unit – 2. : Economic Activities		**(12)**
2.1	Economic Activities: Type and Characteristics	
2.2	Factors Affecting Economic Activities	
2.3	Agriculture and Lumbering: Types and Distribution	
2.4	Fishing and Animal Husbandry: Types and Distribution	
Unit – 3. : Minerals and Industries		**(12)**
3.1	Minerals: Importance, Characteristics and Distribution of Iron Ore, Manganese, Coal and Mineral Oil	
3.2	Factors Affecting Industrial Locations	
3.3	Weber's Industrial Location Theory	
3.4	Major Industrial Regions of the World	
Unit – 4. : Transport and International Trade		**(12)**
4.1	Transportation: Importance and influencing factors	
4.2	Major Transport Patterns in the World	
4.3	Patterns of International Trade: Composition and Direction	
4.4	Major International Trade Organisations: WTO, OPEC, SAARC, G-20 and BRICS	
Unit – 5 : Economic Development of India		**(12)**
5.1	Levels of Economic Development in India	
5.2	Globalisation and its impact on Indian economy	
5.3	Special Economic Zones: Concept and issues in India	
5.4	Environment and Economic Development and related issues	

Reference Books:

1. Datt, G. And Mahajan, A. (2016): "Datt and Sundaram's Indian Economy", S. Chand Publishing, New Delhi
2. Drezee J and Sen A.: "Indian Economic Development and Social Opportunity", Oxford University Press, London
3. Gautam, A. (2010): "Advanced Economic Geography", ShardaPustakBhawan, Allahabad
4. Hartshorne T. & Alexander J.W.: "Economic Geography", Prentice New Delhi
5. Hodder, B. and Lee, R. (2008):"Economic Geography", Rawat Publishers, Jaipur
6. Khanna K.K., Gupta V. K., (1987): "Economic and Commercial Geography", Sultan Chand and Com.
7. Memoria, C. B. : "Economic and Commercial Geography of India"
8. Saxena, H. (2016): "Economic Geography", Rawat Publishers, Jaipur
9. Singh, J. and Dhillon, S.: "Agricultural Geography", Tata McGraw hill Publication Company Ltd., New Delhi.
10. Vaidya B.C. (1998): "Readings in Transportation Geography", Devika Publications, New Delhi.
11. Vaidya B.C. (2003): "Geography of Transport Development", Concept Publication, New Delhi.
12. Weber Alfred (1957): "Theory of Location of Industry"Chicago Press
13. अहिरराव, धापटे, पाटील, शिंदे (१९९७): आर्थिक भूगोल, निराली प्रकाशन, पुणे
14. एस. ए. ठाकूर, आर. बी. पाटील, पेडणेकर, धुरी(२०१२) : आर्थिक भूगोल, कोकण जोग्रफर्स असोसिएशन
15. खतीब (२००७): आर्थिक भूगोल, मेहता पब्लिशिंग हाउस, कोल्हापूर
16. फुले, शिंदे, पवार, अडसूळ, पाटील (१९९८): आर्थिक भूगोल, सप्रेमप्रकाशन, कोल्हापूर
17. विठ्ठल घारपुरे (२०१३): आर्थिक भूगोल, पिंपळापुरे अंड पब्लिशर्स, नागपूर.
18. शिंदे, केंगारे, माने-देशमुख (१९९९): आर्थिक भूगोल, फडके प्रकाशन, कोल्हापूर
19. सवदी, कोळेकर (२०१०): अभिनव भूगोल : , निराली प्रकाशन, पुणे

QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
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Q. 2	Long answer question on Unit-II	20 Marks
	OR	
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Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
	OR	
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
	OR	
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A./T.Y.B.Sc. Geography, Semester –VI, Paper: VIII – A

Subject Title: BIOGEOGRAPHY

COURSE CODE: _____, Credit: __04_____

Unit-I: Introduction to Biogeography		**TOTAL LECTURES**
1.1	Biogeography-Concept, definition, nature and scope	**12**
1.2.	Historical development and branches of Biogeography	
1.3.	Approaches in Biogeography	
1.4.	Importance of Biogeographic studies	
Unit-II: Ecosystem and Biosphere		**12**
2.1.	Ecosystem: Concept, meaning and types	
2.2.	Components of ecosystem and ecosystem productivity	
2.3.	Biosphere: Concept, meaning and components	
2.4.	Biogeographic processes	
Unit -III: Plant Community		**12**
3.1.	Concept of plant community and classification of plants	
3.2.	Biotic succession and climax vegetation	
3.3.	Major plant formation and biomes- Tropical	
3.4.	Major plant formation and biomes- Temperate	
Unit –IV: Marine Biogeography		**12**
4.1.	Marine Biogeography meaning and concept	
4.2.	Types of ocean habitats	
4.3.	Biogeography of estuaries	
4.4.	Island biogeography	
Unit-V: Biodiversity		**12**
5.1.	Meaning and types of Biodiversity	
5.2.	Importance of Biodiversity	
5.3.	Causes of Biodiversity loss	
5.4	Biodiversity conservation	

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QUESTION PAPER PATTERN:

Time: 3 hours		**Marks; 100**
N.B. 1. All questions are compulsory and carry equal marks. 2. Use of Map Stencils is permitted. 3. Draw sketches and diagrams wherever necessary.		
Q. 1	Long answer question on Unit-I	20 Marks
	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 3	Long answer question on Unit-III	20 Marks
	OR	
	Long answer question on unit –III for 20 Marks	20 Marks

	or Two short answer questions each 10 Marks	
Q. 4	Long answer question on Unit-IV	20 Marks
OR		
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
OR		
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester – VI, Paper – VIII-B:

Subject Title: SOCIAL GEOGRAPHY

COURSE CODE: _____ (2018-19), Credit: __04_____

UNIT – I: Introduction to Social Geography		**TOTAL LECTURES**
1.1	Social Geography: Definitions, Nature, Scope and importance	**12**
1.2	Branches and Approaches in Social Geography	
1.3	Concept of Social Space and Socio-cultural Regions	
1.4	Globalisation: The Process of Social and Spatial Change	
UNIT – II: Elements of Social Geography -World		**12**
2.1	Race: Concept and Basis of Classification and distribution	
2.2	Religion: Characteristics, Distribution and Spread of Major Religions in the World	
2.3	Language: Characteristics and Distribution of Major Linguistic Families in the World	
2.4	Tribes: Concept, Characteristics and Patterns of Distribution of Major Tribes in the World	

UNIT – III: : Elements of Social Geography –India		**12**
3.1	Race: Major races and its distribution in India	
3.2	Religion: Major Religions and its distribution and its distribution in India	
3.3	Language: Major Linguistic Families in India	
3.4	Tribes: Distribution of Scheduled Tribes in India	
UNIT - IV: Social Geography of City		**12**
4.1	Social groups – identification and distribution	
4.2	Residential segregation	
4.3	Functional segregation	
4.4	Social issues in the city	
UNIT – V: Contemporary Issues in India		**12**
5.1	Religion related social issues	
5.2	Language related social issues	
5.3	Patterns of gender issues in India	
5.4	Socio-economic problems of indigenous communities in India	

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- www.nptel.ac.in/courses/109103022/40

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Time: 3 hours		**Marks; 100**
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	OR	
	Long answer question on unit –I for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 2	Long answer question on Unit-II	20 Marks
	OR	
	Long answer question on unit –II for 20 Marks	20 Marks

	or Two short answer questions each 10 Marks	
Q. 3	Long answer question on Unit-III	20 Marks
OR		
	Long answer question on unit –III for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 4	Long answer question on Unit-IV	20 Marks
OR		
	Long answer question on unit –IV for 20 Marks or Two short answer questions each 10 Marks	20 Marks
Q. 5	Long answer question on Unit-V	20 Marks
OR		
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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University of Mumbai

Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)

T.Y.B.A. / T.Y.B.Sc. Geography, Semester – VI,Paper: VIII-C

Subject Title: GEOGRAPHY OF TRANSPORT

COURSE CODE: _____, Credit: _04_____

Unit-I : Introduction to Transport Geography		**TOTAL LECTURES**
1.1	Concept and Definition of Geography of Transport	**12**
1.2	Nature and Scope Geography of Transport	
1.3	Definition of Distance and its types, Factors affecting on Transportation	
1.4	Significance of the study of Geography of Transport	

Unit-II – Transport net work system		**12**
2.1	Transport net work system – structure and properties	
2.2	Application of graph theory measures	
2.3	Location of routes and efficiency of network	
2.4	Conflicting aspects of decision making	
Unit-III : Evolution of Modes of Transport		**12**
3.1	Evolution of transport network and their environment	
3.2	Phases of growth and development of different modes of transport	
3.3	Factors influencing comparative cost structures and locational responses	
3.4	Global patterns of land, water and air transports	
Unit-IV : Theoretical Framework of Transport		**12**
4.1	Connectivity and its Measurement	
4.2	Accessibility and its Measurement	
4.3	Taffe's model	
4.4	Gravity model	
Unit-V: Transportation Issues in India		**12**
5.1	Issues associated with roadways transport network	
5.2	Issues associated with railways transport network	
5.3	Issues associated with water transport development	
5.4	Issues associated with air transport development	

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QUESTION PAPER PATTERN:

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	OR	
	Long answer question on unit –IV for 20 Marks	20 Marks

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Q. 5	Long answer question on Unit-V	20 Marks
OR		
	Long answer question on unit –V for 20 Marks or Two short answer questions each 10 Marks	20 Marks

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	University of Mumbai **Revised Syllabus w.e.f. Academic Year, 2018-19 (CBSGS)** **T.Y.B.A. / T.Y.B.Sc. Geography, Semester – VI, Paper – IX :** **PROJECT REPORT** **Course Code: Credits: 03**	